ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
1110 West Washington Street • Phoenix, AZ 85007 • Phone: (602) 771-2338

TITLE V GENERAL AIR QUALITY CONTROL PERMIT

for

AIR CURTAIN INCINERATORS

(As required by Title 49, Chapter 3, Article 2, Section 49-426, Arizona Revised Statutes)

This air quality control permit does not relieve applicant of responsibility for meeting all air pollution regulations

THIS GENERAL PERMIT ISSUED SUBJECT TO THE FOLLOWING **Conditions contained in Attachments "A", "B", "C", and "D"**

ADEQ GENERAL PERMIT NUMBER ____ PERMIT CLASS **I** EXPIRATION DATE _____

PERMIT ISSUED THIS _____ DAY OF _____**, 2008**

Nancy C. Wrona, Director, Air Quality Division
SIGNATURE TITLE

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GENERAL AIR QUALITY CONTROL PERMIT FOR

AIR CURTAIN INCINERATORS

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AIR QUALITY CONTROL GENERAL PERMIT
FOR AIR CURTAIN INCINERATORS

INTRODUCTION

This General Permit covers stationary and portable air curtain incinerators that are subject to Federal New Source Performance Standards (NSPS) Subpart EEEE that burn less than 35 tons/day of wood waste, clean lumber and yard waste.

AIR QUALITY CONTROL GENERAL PERMIT FOR AIR CURTAIN INCINERATORS

ATTACHMENT "A": GENERAL PROVISIONS

I. GENERAL PERMIT EXPIRATION AND RENEWAL

[A.R.S. § 49-426.F, A.A.C.R18-2-306.A.1, -505]

A. This General Permit is valid for a period of five years from the date of issuance. The Director of ADEQ (Director) shall review and may renew this General Permit every five years from its date of issuance. The Permittee's Authorization to Operate (ATOs) shall coincide with the term of this General Permit, regardless of when the individual authorization began during this five year period, except that the Director may require a Permittee authorized to operate under this General Permit to apply for and obtain an individual permit at any time, if the source is not in compliance with the terms and conditions of this General Permit.

B. At the time that the public notice is required, pursuant to issuance of the proposed General Permit renewal, the Director shall notify in writing all Permittees who have been granted, or who have applications pending for, ATO(s) under this General Permit. The written notice shall describe the source's duty to reapply and may include requests for information required under the proposed General Permit.

II. COMPLIANCE WITH PERMIT CONDITIONS

[A.A.C.R18-2-306.A.8.a and b]

A. The Permittee shall comply with all Conditions of this General Permit including all applicable requirements of Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action, for ATO termination or revocation, or for denial of a renewal application. In addition, non-compliance with any federally enforceable requirements constitutes a violation of the Clean Air Act.

B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

III. GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

[A.A.C.R18-2-321.c and d, and -510]

A. The Director may reopen and reissue, or terminate this General Permit at any time if:

1. The Director has determined that the emissions from the sources in the facility class cause or contribute to ambient air quality standards violations which are not adequately addressed by the requirements in this General Permit, or

2. The Director has determined that the terms and conditions of this General Permit no longer meet the requirements of A.R.S. §49-426 and 427.

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Director or the Administrator determines that the permit needs to be revised

or revoked to assure compliance with the applicable requirements.

B. The Director shall provide written notice to all sources operating under this General Permit prior to reissuance or termination of this General Permit. Such notice shall include an explanation of the basis for the proposed action. Within 180 days of receipt of the notice of the expiration, termination or cancellation of this General Permit, sources notified shall submit an application to the Director for the appropriate permit.

C. The Director may require a source authorized to operate under this General Permit to apply for and obtain an individual source permit at any time if:

1. The source is not in compliance with the terms and conditions of this General Permit;

2. The Director has determined that the emissions from the source or facility class are significant contributors to ambient air quality standard violations which are not adequately addressed by the requirements in this General Permit.

3. The Director has information, which indicates that the effects on human health and the environment from the sources covered under this General Permit are unacceptable;

4. The Director has reasonable cause to believe that the ATO was obtained by fraud or misrepresentation; or

5. The person applying for an ATO failed to disclose a material fact required by the permit application or the regulations applicable to the ATO of which the applicant had or should have had knowledge at the time the application was submitted.

D. If the Director revokes a source's authority to operate under this General Permit, the Director shall notify the Permittee by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the revocation of authority and a statement that the Permittee is entitled to a hearing. A source previously authorized to operate under this General Permit may operate under the terms of this General Permit until the earlier of the date it submits a complete application for an individual permit, at which time it may operate under that application, or 180 days after receipt of the notice of revocation of authority to operate under this General Permit.

IV. POSTING OF GENERAL PERMIT [A.A.C. R18-2-315]

A. Any person who has been granted coverage under this General Permit shall post such General Permit or a certificate of General Permit coverage at the location where the equipment is installed in such a manner as to be clearly visible and accessible.

B. Equipment Labels

1. All portable equipment covered by this General Permit that has been issued an ATO shall have either an ADEQ certified label which will include the current permit number and ATO number, and the serial or other equipment number, or be clearly marked with one of the following:

a. The current permit number and ATO number,

b. A serial number or other equipment number that is also listed in the ATO.

2. All equipment covered by this General Permit but not issued an ATO shall be clearly marked with one of the following:

a. The current permit number,

b. A serial number or other equipment number that is also listed in the permit application.

C. A copy of the complete General Permit and associated ATO(s) shall be kept on the site.

V. FEE PAYMENT [A.A.C.R18-2-511]

Permittee shall pay fees to the Director pursuant to A.R.S. §49-426(E) and A.A.C. R18-2-511.

VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE [A.A.C.R18-2-327]

A. Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emissions information for the previous calendar year;

B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

VII. COMPLIANCE CERTIFICATION

A. Permittee shall submit to the Director a compliance certification once each year, which describes the compliance status of the source with respect to each General Permit condition and the methods used for determining the compliance status. The Permittee shall list on the compliance certification all items of equipment issued ATO(s), on site at the time of annual certification. This certification shall be submitted by September 30th and shall cover the period from September 1 of the previous year to August 31 of the current year. In addition, this certification shall include a description of any permit deviation. [A.A.C. R18-2-309.2.a and -309.2.d]

The compliance certification shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification; [A.A.C. R18-2-309.2.c.i]

2. Identification of the method or other means used by the Permittee for determining the compliance status with each term and condition during the certification period. [A.A.C. R18-2-309.2.c.ii]

3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.A.2 above. The certifications

shall identify each deviation and take it into account for consideration in the compliance certification; [A.A.C. R18-2-309.2.c.iii]

4. All instances of deviations from permit requirements reported pursuant to Condition XI.B of this attachment; [A.A.C. R18-2-306.A.5.a]

5. Other facts the Director may require to determine the compliance status of the source. [A.A.C. R18-2-309.2.c.iv]

B. A progress report on all outstanding compliance schedules shall be submitted every six months beginning with six months after permit issuance for all sources required to have a schedule of compliance to remedy a violation. [A.A.C. R18-2-309.5.d]

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS [A.A.C.R18-2-309.3]

Any document required to be submitted by this General Permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification and reports required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

IX. INSPECTION AND ENTRY [A.A.C.R18-2-309.4]

Upon presentation of credentials and other documents as may be required by law, Permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), to perform the following:

A. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this General Permit;

B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this General Permit;

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this General Permit;

D. Sample or monitor at reasonable time, substances or parameters for the purpose of assuring compliance with the General Permit or other applicable requirements; and

E. Record any inspection by use of written, electronic, magnetic and photographic media.

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD [A.A.C.R18-2-304.C]

If a source which has been issued ATO(s) becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, reapply for coverage under the General Permit demonstrating how the source will comply with the standard.

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting [A.A.C.R18-2-306.A.5.b, -306.E.3.d and -310]

1. Excess Emissions shall be reported as follows:

   a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below: [R18-2-310.01.A]

      i. Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XI.A.1.b. below. [R18-2-310.01.A.1]

      ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XI.A.1.a.i above. [R18-2-310.01.A.2]

   b. The report shall contain the following information:

      i. Identity of each stack or other emission point where the excess emissions occurred; [R18-2-310.01.B.1]

      ii. Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions; [R18-2-310.01.B.2]

      iii. Date, time and duration, or expected duration, of the excess emissions; [R18-2-310.01.B.3]

      iv. Identity of the equipment from which the excess emissions emanated; [R18-2-310.01.B.4]

      v. Nature and cause of such emissions; [R18-2-310.01.B.5]

      vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and [R18-2-310.01.B.6]

      vii. Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures. [R18-2-310.01.B.7 & 8]

2. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant

to Condition XI.A.1 above. [A.A.C. R18-2-310.01.C)]

B. Permit Deviations Reporting [A.A.C. R18-2-306.A.5.b]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to an emergency or within two working days of the time when the owner or operator first learned of the occurrence of a deviation from a permit requirement.

C. Emergency Provision

1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [A.A.C. R18-2-306.E.1]

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XI.C.3 is met. [A.A.C. R18-2-306.E.2]

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that: [A.A.C. R18-2-306.E.3]

   a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency; [A.A.C. R18-2-306.E.3.a]

   b. The permitted facility was being properly operated at the time; [A.A.C. R18-2-306.E.3.b]

   c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and [A.A.C. R18-2-306.E.3.c]

   d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken. [A.A.C. R18-2-306.E.3.d]

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof. [A.A.C. R18-2-306.E.4]

5. This provision is in addition to any emergency or upset provision contained in any applicable requirement. [A.A.C. R18-2-306.E.5]

D. Compliance Schedule [ARS § 49-426(I)(5)]

For any excess emission or permit deviation that cannot be corrected with 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

E. Affirmative Defenses for Excess Emissions due to Malfunctions, Startup, and Shutdown

1. Applicability

This condition establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations: [A.A.C. R18-2-310.A]

a. Promulgated pursuant to Sections 111 or 112 of the Act; [A.A.C. R18-2-310.A.1]

b. Promulgated pursuant to Titles IV or VI of the Clean Air Act; [A.A.C. R18-2-310.A.2]

c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA; [A.A.C. R18-2-310.A.3]

d. Contained in A.A.C. R18-2-715(F); or [A.A.C. R18-2-310.A.4]

e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5. [A.A.C. R18-2-310.A.5]

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of Condition XI.A and has demonstrated all of the following: [A.A.C. R18-2-310.B]

a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee; [A.A.C. R18-2-310.B.1]

b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions; [A.A.C. R18-2-310.B.2]

c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and

overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable; [A.A.C. R18-2-310.B.3]

d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions; [A.A.C. R18-2-310.B.4]

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality; [A.A.C. R18-2-310.B.5]

f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; [A.A.C. R18-2-310.B.6]

g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source; [A.A.C. R18-2-310.B.7]

h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices; [A.A.C. R18-2-310.B.8]

i. All emissions monitoring systems were kept in operation if at all practicable; and [A.A.C. R18-2-310.B.9]

j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records. [A.A.C. R18-2-310.B.10]

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in Condition XI.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of Condition XI.A and has demonstrated all of the following: [A.A.C. R18-2-310.C.1]

i. The excess emissions could not have been prevented through careful and prudent planning and design; [A.A.C. R18-2-310.C.1.a]

ii. If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property; [A.A.C. R18-2-310.C.1.b]

iii. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions; [A.A.C. R18-2-310.C.1.c]

iv. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions; [A.A.C. R18-2-310.C.1.d]

v. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality; [A.A.C. R18-2-310.C.1.e]

vi. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source; [A.A.C. R18-2-310.C.1.f]

vii. All emissions monitoring systems were kept in operation if at all practicable; and [A.A.C. R18-2-310.C.1.g]

viii. Contemporaneous records documented the Permittee's actions in response to the excess emissions. [A.A.C. R18-2-310.C.1.h]

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XI.E.2 above. [A.A.C. R18-2-310.C.2]

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XI.E.2 above. [A.A.C. R18-2-310.D]

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XI.E.2 or XI.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Conditions XI.E and XI.A, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions. [A.A.C. R18-2-310.E]

XII. RECORD KEEPING REQUIREMENTS

A. Monitoring Records [A.A.C. R18-2-306.A.4.a]

The Permittee shall keep records of all required monitoring information including, but not limited to, the following; [A.A.C. R18-2-306.A.4.a]

1. The date, place as defined in the permit, and time of sampling or measurements; [A.A.C. R18-2-306.A.4.a.i]

2. The date(s) analyses were performed; [A.A.C. R18-2-306.A.4.a.ii]

3. The name of the company or entity that performed the analyses; [A.A.C. R18-2-306.A.4.a.iii]

4. A description of the analytical techniques or methods used; [A.A.C. R18-2-306.A.4.a.iv]

5. The results of such analyses; and [A.A.C. R18-2-306.A.4.a.v]

6. The operating conditions existing at the time of sampling or measurement. [A.A.C. R18-2-306.A.4.a.vi]

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. [A.A.C. R18-2-306.A.4.b]

C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

XIII. REPORTING REQUIREMENTS [A.A.C. R18-2-306.A.5]

The Permittee shall submit the following reports:

A. Compliance certifications in accordance with Section VII of Attachment "A".

B. Excess emissions, permit deviations, and emergency reports in accordance with Section XI of Attachment "A".

C. Performance test results in accordance with Condition XVI.G F of Attachment "A".

D. Other reports required by any condition in Attachment "B".

XIV. DUTY TO PROVIDE INFORMATION

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revoking the General Permit coverage, or to determine compliance with this General Permit. Upon request, the Permittee shall also furnish to the Director copies of records that the Permittee is required to keep under the General Permit. For information claimed confidential, the Permittee shall furnish an additional copy of such records directly to the Director along with a claim of confidentiality. [A.A.C. R18-2-306.A.8.e]

B. If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in a General Permit coverage application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. [A.A.C. R18-2-304.G]

XV. FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN ATO OR INDIVIDUAL PERMIT [A.A.C. R18-2-317.02]

A. Except for a physical change or change in the method of operation at a Class II source subject to logging or notice requirements in Conditions XV.B and XV.C below, a change

at a Class II source shall not be subject to revision, notice, or logging requirements under this Section. [A.A.C. R18-2-317.02.A]

B. The following changes may be made if the source keeps on site records of the changes according to Appendix 3 of the Arizona Administrative Code:

1. Implementing an alternative operating scenario, including raw material changes;

2. Changing process equipment (as long as the change does not require a new ATO), operating procedures, or making any other physical change if the permit requires the change to be logged;

3. Engaging in any new insignificant activity listed in A.A.C. R18-2-101.57.a through A.A.C. R18-2-101.57.i but not listed in the permit;

4. Replacing an item of air pollution control equipment listed in the permit with an identical (same model, different serial number) item. The Director may require verification of efficiency of the new equipment by performance tests; and

5. A change that results in a decrease in actual emissions if the source wants to claim credit for the decrease in determining whether the source has a net emissions increase for any purpose. The logged information shall include a description of the change that will produce the decrease in actual emissions. A decrease that has not been logged is creditable only if the decrease is quantifiable, enforceable, and otherwise qualifies as a creditable decrease.

C. The following changes may be made if the source provides written notice to the Department in advance of the change as provided below:

1. If allowed under the General Permit, replacing an item of air pollution control equipment listed in the permit with one that is not identical but that is substantially similar and has the same or better pollutant removal efficiency: 7 days. The Director may require verification of efficiency of the new equipment by performance tests;
2. If allowed under the General Permit, replacing an item of air pollution control equipment listed in the permit with one that is not substantially similar but that has the same or better efficiency: 30 days. The Director may require verification of efficiency of the new equipment by performance tests; and

3. A change that would trigger an applicable requirement that already exists in the permit: 30 days unless otherwise required by the applicable requirement.

D. For each change under Condition XV.C above, the written notice shall be by certified mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but must be provided as far in advance of the change, or if advance notification is not practicable, as soon after the change as possible. The written notice shall include:

1. When the proposed change will occur,

2. A description of the change,

3. Any change in emissions of regulated air pollutants, and

4. Any permit term or condition that is no longer applicable as a result of the change.

E. The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under Condition XV.B.1.

F. If a source change is described under both Conditions XV.B and XV.C above, the source shall comply with Condition XV.C above.

G. A copy of all logs required under Condition XV.B shall be filed with the Director within 30 days after each anniversary of the permit issuance date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.

H. Logging Requirements [A.A.C. R18-2-317.02.B and Appendix 3]

1. Each log entry required by a change under Condition XV.B shall include the following information:

   a. A description of the change, including:

      i. A description of any process change;

      ii. A description of any equipment change, which does not require a new or revised ATO(s), including both old and new equipment descriptions, model numbers and serial numbers, or any other unique equipment number; and

      iii. A description of any process material change.

   b. The date and time that the change occurred,

   c. The date the entry was made and the first and last name of the person making the entry.

   d. The date the entry was made and the first and last name of the person making the entry.

2. Logs shall be kept for 5 years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially numbered pages, or in any other form, including electronic format, approved by the Director.

XVI. TESTING REQUIREMENTS [A.A.C. R18-2-312]

A. The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

B. Operational Conditions During Performance Testing

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

C. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

D. Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

1. Test duration;

2. Test location(s);

3. Test method(s); and

4. Source operation and other parameters that may affect the test result.

F. Report of Final Results

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

XVII. PROPERTY RIGHTS [A.A.C. R18-2-306.A.8.d]

This General Permit does not convey any property rights of any sort, or any exclusive privilege.

XVIII. SEVERABILITY CLAUSE [A.A.C. R18-2-306.A.7]

The provisions of this General Permit are severable. In the event of a challenge to any portion of this General Permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

XIX. ACCIDENTAL RELEASE PROGRAM [40 CFR 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

XX. APPLICABILITY OF NSPS GENERAL PROVISIONS [40 CFR 60]

For all equipment subject to a New Source Performance Standard, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 of the Code of Federal Regulations.

AIR QUALITY CONTROL GENERAL PERMIT FOR AIR CURTAIN INCINERATORS

ATTACHMENT "B": SPECIFIC CONDITIONS

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN

[ARS § 49-404.c and -426]

This permit is issued pursuant to the provisions of the Arizona Revised Statutes (ARS) and constitutes an Installation Permit for the purpose of the applicable State Implementation Plan.

II. CONDITIONS FOR COVERAGE

[A.A.C.R18-2-302.B, -306.01, –501 through -511]

This General Permit covers sources that meet the requirements as laid out in the general permit application packet for Air Curtain Incinerators.

III. FACILITYWIDE REQUIREMENTS

A. The Permittee shall have on site or on call a person certified in EPA Reference Method 9. [A.A.C. R18-2-306.A.3.c]

B. The Permittee shall maintain, on-site, records of the manufacturer's specifications or Operation and Maintenance Plan for the air curtain incinerator. [A.A.C. R18-2-306.A.4]

C. The Permittee shall submit reports of all monitoring activities required in Attachment "B" along with the compliance certifications required by Section VII of Attachment "A". [A.A.C. R18-2-306.A.5]

D. All requests, reports, applications, submittals, and other communications, required under Section IV of this Attachment, to the Director pursuant to A.A.C. R18-2-901, -902, and 40 CFR Part 60 shall be submitted in duplicate to the EPA Region 9 office at the following address:

Director, Air Division (Attn: AIR-1)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105 [40 CFR 60.4(a)]

E. The Permittee shall operate and maintain all equipment associated with this General Permit in accordance with manufacturer's specifications. If manufacturer specifications are not available, the Permittee shall develop and implement procedures for the proper operation and maintenance of each piece of equipment. A copy of the manufacturer specifications or the operation and maintenance plan shall be kept on site and made available to ADEQ or the respective air quality control agency upon request. [A.A.C. R18 2 306.A.2]

F. Prior to operating in Pima, and Pinal counties, the Permittee shall obtain written approval from the appropriate county agency in accordance with the requirements of Pima County Code (Title 17, Chapter 12, Article V) and Pinal County Code (Chapter 3, Article 8) respectively. [A.A.C. R18 2 306.A.2]

G. Notwithstanding any other provision of this permit, the Permittee shall not operate the air

curtain incinerators on days when no-burn restrictions are in place or high pollution advisories have been issued.

[A.A.C. R18 2 306.A.2]

H. From May 1 through September 30 each year, the Permittee shall not operate its air curtain incinerators in Area A as defined in Arizona Revised Statutes Section 49-541. This condition shall not apply if the products of combustion from the air curtain incinerator are released through a stack, chimney, or equivalent.

[A.R.S. 49-501.A.2 and A.R.S. 49-501.H]

I. While operating in Maricopa County, unless prohibited by Condition H above, the Permittee shall comply with the following hours of operation:

April-September: 6:00 am – 6:00 pm
October-March: 8:00 am – 5:00 pm

[Appendix to Maricopa County Rule 314, Part G]

J. The Permittee shall keep records of the operational location of the air curtain incinerators. For each location, the Permittee shall keep a record of the duration of operation. [A.A.C. R18 2 306.A.2]

K. *The Permittee shall not collocate the air curtain incinerator with any other facility that requires an air quality permit.*

[A.A.C. R18-2-306.01 & A.A.C. R18-2-331.A.3.a]
[Material permit conditions are indicated by underline and italics]

L. *The Permittee shall not cause the emissions of any criteria pollutant, from the air curtain incinerator, to exceed 100 tons per year in any rolling twelve month period.*

[A.A.C. R18-2-306.01 & A.A.C. R18-2-331.A.3.a]
[Material permit conditions are indicated by underline and italics]

IV. AIR CURTAIN INCINERATOR REQUIREMENTS

A. Applicability

This Section is applicable to Air Curtain Incineration Units for which construction commenced after December 9, 2004, or for which modification or reconstruction is commenced on or after June 16, 2006, that burn wood waste, clean lumber and yard waste.

B. Definitions [40 CFR 60.2977]

1. An air curtain incinerator operates by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs.

2. Wood waste means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

a. Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.

b. Construction, renovation, or demolition wastes.

c. Clean lumber.

d. Treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

3. Yard waste means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include:

a. Construction, renovation, and demolition wastes.

b. Clean lumber.

4. Clean lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

C. **Operational Requirements**

1. Operating Limitations

a. *The Permittee shall not burn more than 35 tons per day of material listed below in b.i. through b.iv in the air curtain incinerator.*

[40 CFR 60.2888(b), A.A.C. R18-2-306.01.A and A.A.C. R18-2-331.A.3.a]
[Material permit conditions are indicated by underline and italics]

b. *The Permittee shall burn only the following materials in the air curtain incinerator:*

i. *100 percent wood waste.*
ii. *100 percent clean lumber.*
iii. *100 percent yard waste.*
iv. *100 percent mixture of only wood waste, clean lumber, and/or yard waste*.

[40 CFR 60.2970(b), A.A.C. R18-2-306.01.A and A.A.C. R18-2-331.A.3.a]
[Material permit conditions are indicated by underline and italics]

2. Air Pollution Control Requirements

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and *operate the air curtain*

incinerator in a manner consistent with good air pollution control practice for minimizing emissions. [A.A.C. R18-2-306.A.2 and A.A.C. R18-2-331.A.3.d and e]

[Material permit conditions are indicated by underline and italics]

3. General Operating Requirements [A.A.C. R18-2-306.A.2]

a. The air curtain incinerator shall be operated only from dawn to dusk.

b. The proper blower speed must be maintained so as to meet emissions standards.

c. The blower must be operating when and as long as any material in the air curtain incinerator is burning.

d. When loading (feeding) the air curtain incinerator, the material must not extend above the air curtain (blower airflow).

e. The loading of materials into the air curtain incinerator must be discontinued at a minimum of 2 hours prior to sunset. The blower must continue to operate until combustion is completed.

f. Adequate measures must be taken to assure that no emissions emanate from materials left in the air curtain incinerator (i.e., overnight). For trench burners, all materials left in the trench must be extinguished with water or covered over with a minimum of 1 foot of mineral soil.

g. All materials removed from the air curtain incinerator must be completely extinguished and all reasonable precautions must be taken to control emissions.

h. A visual on-site inspection of the air curtain incinerator and the material must be conducted prior to start of burn. Any unauthorized material must be removed prior to burning.

i. Materials such as oleander leaves that generate toxic fumes when burned, shall not be burned in the air curtain incinerator.

j. For trench operations, the burn pit must not exceed the length of the plenum.

4. Recordkeeping Requirements

The Permittee shall maintain daily records of hours of operation including start and stop times, quantity and type of material burnt in the air curtain incinerator, quantity and type of fuel burnt, if any. [A.A.C. R18-2-306.A.3.c and -306.A.4]

D. Particulate Matter and Opacity

1. Emission Limitations/Standards

Within 60 days after the air curtain incinerator reaches the charge rate at which it will operate, but no later than 180 days after the initial startup, the air curtain incinerator shall meet the following limitations:

a. *At all times, except during startup and malfunction, the opacity of emissions from the air curtain incinerator shall not be greater than 10% (6-minute average) measured in accordance with the Arizona Testing Manual, Reference Method 9.*

[40 CFR 60.2971(a)(1), 40 CFR 60.2971(b) and A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

b. *During the startup period that is within the first 30 minutes of operation, the opacity shall not exceed 35 percent (6-minute average).*

[40 CFR 60.2971(a)(2) and A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

2. Monitoring, Recordkeeping, and Reporting Requirements

a. Prior to commencing construction on the air curtain incinerator, the Permittee shall submit the following:

i. Notification of the intent to construct the air curtain incinerator.

ii. Planned initial startup date.

iii. Types of materials to be burnt in the air curtain incinerator.

[40 CFR 60.2973(a)]

b. A certified EPA Reference Method 9 observer shall conduct a quarterly survey of visible emissions emanating from the air curtain incinerator. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of the observer, name of the observer, date and time of the observation, and the results of the observation. If the observation results in an exceedance of the opacity limit contained in Condition IV.D.1, the Permittee shall take corrective action and log all such actions. Such exceedance shall be reported as excess emissions in accordance with Condition XI.A.1 of Attachment "A". [A.A.C. R18-2-306.A.3.c]

c. The Permittee shall keep records of results of all initial and annual opacity tests for at least 5 years, in either paper copy or computer-readable format that can be printed upon request, unless the Administrator approves another format. The records must be maintained on site for at least 2 years. All records shall be made available to the ADEQ Director and EPA Administrator upon request.

[40 CFR 60.2973(b), (c)]

d. The Permittee shall submit the result of initial opacity tests no later than 60 days following the initial test. Subsequent annual test results shall be submitted within 12 months following the previous report. The Permittee may submit these reports as electronic or paper copy.

[40 CFR 60.2973(d), (e)]

3. Testing Requirements

a. Within 180 days of issuance of coverage under this general permit for air

curtain incinerators, and annually thereafter, the Permittee shall conduct EPA Method 9 test for opacity. [40 CFR 60.2972(a), (b), (c)]

b. If the air curtain incinerator has been out of operation for more than 12 months following the previous test, the Permittee shall perform the test upon the startup of the unit. [40 CFR 60.2972(d)]

V. FUGITIVE DUST REQUIREMENTS

A. Applicability

This Section applies to any source of fugitive dust in the facility.

B. Particulate Matter and Opacity

1. Open Areas, Roadways & Streets, Storage Piles, and Material Handling

a. Emission Limitations/Standards

i. Opacity of emissions from any fugitive dust source shall not be greater than 40% measured in accordance with the Arizona Testing Manual, Reference Method 9. [A.A.C. R18-2-614]

ii. The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

(a) Keep dust and other types of air contaminants to a minimum in an open area where construction operations, repair operations, demolition activities, clearing operations, leveling operations, or any earth moving or excavating activities are taking place, by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means; [A.A.C. R18-2-604.A]

(b) Keep dust to a minimum from driveways, parking areas, and vacant lots where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means; [A.A.C. R18-2-604.B]

(c) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway is repaired, constructed, or reconstructed; [A.A.C. R18-2-605.A]

(d) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust;

[A.A.C. R18-2-605.B]

(e) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, handling, or conveying material likely to give rise to airborne dust; [A.A.C. R18-2-606]

(f) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored; [A.A.C. R18-2-607.A]

(g) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents; [A.A.C. R18-2-607.B]

(h) Any other method as proposed by the Permittee and approved by the Director. [A.A.C. R18-2-306.A.3.c]

b. Monitoring and Recordkeeping Requirements

The Permittee shall maintain records of the dates on which any of the activities listed in Conditions V.B.1.a.ii.(a) through V.B.1.a.ii(h) above were performed and the control measures that were adopted. [A.A.C. R18-2-306.A.3.c]

VI. CONDITIONS SPECIFIC TO PORTABLE SOURCES

A. Equipment Identification

The equipment serial number, utilizing not less than three-inch high characters, shall be stenciled on each permitted piece of equipment, and referenced in all correspondence with the Department. [A.A.C. R18-2-315.A.2 and -324.E]

B. Move Notice

A portable source may be transferred from one location to another provided that the Permittee of such equipment notifies the Director, and any control officer who has jurisdiction over the geographic area that includes the new location, of the transfer by certified mail at least ten (10) working days before the transfer. The location change shall include the following: [A.A.C. R18-2-324.D and A.A.C. R18-2-306.A.5]

1. A description of all permitted equipment (under the same owner or operator) which is going to be present at the site including the permit number, the manufacturer, the model number, the serial number, and equipment ID number(s) for such equipment;

2. The address and description of the present location of the equipment;

3. The address and description of the location to which the equipment is to be

transferred, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;

4. The date on which equipment is to be moved; and

5. The date on which operation of the equipment will begin at the new location.

C. Renting or Leasing Permitted Equipment

In the case that equipment covered under this permit is rented or leased, this permit shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by this permit's provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of this equipment in compliance with the permit conditions and any violations thereof.
[A.A.C. R18-2-324.C]

D. Portable Sources Operating Solely in One County

A portable source that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. 49-479 shall obtain a permit from that county. A portable source with a county permit shall not operate in any other county until it receives a permit from the Arizona Department of Environmental Quality. [A.A.C. R18-2-324.A and -324.B]

VII. MOBILE SOURCE REQUIREMENTS

A. Applicability

The requirements of this Section are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.90. [A.A.C.R18-2-801.A]

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

   a. Off-Road Machinery
   The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. Off-road machinery shall include trucks, graders, scrapers, rollers, and other construction and mining machinery not normally driven on a completed public roadway.
   [A.A.C.R18-2-802.A and -802.B]

   b. Roadway and Site Cleaning Machinery

      i. The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions

when starting cold equipment shall be exempt from this requirement for the first ten minutes. [A.A.C.R18-2-804.A]

ii. The Permittee shall take reasonable precautions, such as the use of dust suppressants, before the cleaning of a site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means. [A.A.C. R18-2-804.B]

c. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%. [A.A.C.R18-2-801.B]

2. Recordkeeping Requirement

The Permittee shall keep a record of all emissions related maintenance activities performed on the Permittee's mobile sources stationed at the facility as per manufacturer's specifications. [A.A.C.R18-2-306.A.5.a]

VIII. COMPRESSION IGNITION ENGINES SUBJECT TO NSPS

A. Applicability

This Section applies to compression ignition engines marked as subject to NSPS on the associated ATO.

B. General Requirements

1. Operating Requirements

a. The Permittee shall operate and maintain the engine according to the manufacturer’s written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. A copy of the instructions or procedures shall be kept onsite and made available to ADEQ upon request. [40 CFR 60.4211(a) and A.A.C. R18-2-306.A.3]

b. The Permittee shall only change those engine settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]

c. The Permittee shall meet the requirements of 40 CFR parts 89, 94, or 1068, as they apply. [40 CFR 60.4211(a)]

d. The Permittee shall operate and maintain the internal combustion engine according to the manufacturer’s written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. [40 CFR 60.4206]

e. Fuel Requirements

i. After October 1, 2007, an engine that uses diesel fuel, shall use diesel fuel that meets the following requirements of 40 CFR 80.510(a):

(a). Sulfur content: 500 parts per million (ppm) maximum; and

(b). A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(a)]

ii. After October 1, 2010, an engine that uses diesel fuel and has a displacement of less than 30 liters per cylinder, shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b):

(a). Sulfur content: 15 ppm maximum; and

(b). A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b)]

f. Additional Emergency Engine Requirements

[40 CFR 60.4211(e), 60.4209(a), A.A.C. R18-2-306.A.3.c, -306.A.4, and -331.A.3.c]

[Material permit conditions are indicated by underline and italics]

i. *The Permittee shall install a non-resettable hour meter prior to startup of the engine.*

ii. Emergency internal combustion engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

iii. The Permittee shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to ADEQ upon request.

iv. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year.

v. The Permittee shall not operate emergency engines except for emergency purposes, and maintenance and testing. There is no time limit on the use of the engine in emergency situations.

vi. The Permittee shall maintain monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.

2. Emission Limitations and Standards

a. Non-emergency Engines

2007 model year and later non-emergency internal combustion engines with a displacement of less than 30 liters per cylinder shall comply with the appropriate emission limitation as follows:

[40 CFR 60.4204(b)]

i. 2007 model year and later engines with a maximum engine power less than or equal to 3,000 horsepower and a displacement of less than 10 liters per cylinder shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

[40 CFR 60.4201(a)]

ii. 2007 through 2010 model year engines with a maximum engine power greater than 3,000 horsepower and a displacement of less than 10 liters per cylinder shall meet the emission standards in Conditions VIII.C.1.a, VIII.D.1.a, VIII.E.1.a, and VIII.F.1, for all pollutants, for the same maximum engine power.

[40 CFR 60.4201(b)]

iii. 2011 model year and later engines with a maximum engine power greater than 3,000 horsepower and a displacement of less than 10 liters per cylinder shall meet the emission standards for new nonroad engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power. [40 CFR 60.4201(c)]

iv. 2007 model year and later engines with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder shall meet the emissions standards in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power. [40 CFR 60.4201(d)]

b. Emergency Engines

2007 model year and later emergency internal combustion engines with a displacement of less than 30 liters per cylinder that are not fire pump engines shall comply with the appropriate emission limitation as follows: [40 CFR 60.4205(b)]

i. 2007 model year and later engines with a maximum engine power less than or equal to 3,000 horsepower and a displacement of less than 10 liters per cylinder shall meet the emission standards specified below: [40 CFR 60.4202(a)]

(a). For engines with a maximum engine power less than 50 horsepower:

(i). 2007 model year engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the same model year and maximum engine power, and

(ii). 2008 model year and later engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and Table 2 to 40 CFR part 60, subpart IIII. [40 CFR 60.4202(a)(1)]

(b). 2007 model year and later engines, with a maximum engine power greater than or equal to 50 horsepower, shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the same model year and maximum engine power. [40 CFR 60.4202(a)(2)]

ii. 2007 model year and later engines with a maximum engine power greater than 3,000 horsepower and a displacement of less than 10 liters per cylinder shall meet the emission standards specified below:

(a). 2007 through 2010 model year engines shall meet the emission standards in Conditions VIII.C.1.a, VIII.D.1.a, VIII.E.1.a, and VIII.F.1, for all pollutants, for the same maximum engine power.

(b). 2011 model year and later engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the same model year and maximum engine power. [40 CFR 60.4202(b)]

iii. 2007 model year and later engines with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder shall meet the emission standards for new marine compression ignition engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power. [40 CFR 60.4202(c)]

3. Notification and Reporting Requirements [40 CFR 60.4214(a) and 60.7(a)(1)]

Non-emergency Engines

The Permittee of a non-emergency internal combustion engine that is greater than 3,000 horsepower, or has a displacement greater than or equal to 10 liters per cylinder, or is a pre-2007 model year engine that is greater than 175 horsepower and not certified shall:

a. Submit an initial notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. The notification shall include:

i. Name and address of the owner or operator;

ii. The address of the affected source;

iii. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

iv. Emission control equipment; and

v. Fuel used.

b. Keep records of the following information:

i. All notifications submitted to comply with this Section and all documentation supporting any notification;

ii. Maintenance conducted on the engine;

iii. If the internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards; or

iv. If the internal combustion engine is not a certified engine, documentation that the engine meets the emission standards.

4. Monitoring and Record Keeping Requirements

a. The Permittee of a 2007 model year and later internal combustion engine that is required to comply with the emission standards specified in Conditions VIII.B.2.a or VIII.B.2.b, shall comply by purchasing an engine certified to the emission standards in Condition VIII.B.2, as

applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications.

[40 CFR 4211(c)]

b. The Permittee of a fire pump engine that is manufactured during or after the model year that applies to the fire pump engine power (EP) rating in the following table and is required to comply with the emission standards specified in Conditions VIII.C.1.b, VIII.D.1.b, and VIII.E.1.b, shall comply by purchasing an engine certified to the emission standards in Conditions VIII.C.1.b, VIII.D.1.b, and VIII.E.1.b, as applicable, for the same model year and National Fire Protection Association (NFPA) nameplate engine power. The engine shall be installed and configured according to the manufacturer's specifications.

Engine Power (EP) (horsepower)	Model Year
EP<100	2011
100≤EP<175	2010
175≤EP<750	2009
EP≥750	2008

[40 CFR 4211(c)]

c. The Permittee of a pre-2007 model year stationary compression ignition internal combustion engine that is required to comply with the emission standards specified in Conditions VIII.C.1.a, VIII.D.1.a, VIII.D.1.c, VIII.E.1.a, and VIII.F.1, shall demonstrate compliance according to one of the methods specified below:

i. Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications.

ii. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the methods specified in this 40 CFR 60.4212 or 4213, and the methods shall have been followed correctly.

iii. Keeping records of engine manufacturer data indicating compliance with the standards.

iv. Keeping records of control device vendor data indicating compliance with the standards.

v. Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.

[40 CFR 60.4211(b)]

d. A fire pump engine that is manufactured prior to the model years specified in Condition VIII.B.4.b and is required to comply with the emissions standards specified in Conditions VIII.C.1.b, VIII.D.1.b, and VIII.E.1.b, shall demonstrate compliance according to one of the

methods specified in Condition VIII.B.4.c.i through VIII.B.4.c.v.
[40 CFR 60.4211(b)]

e. An internal combustion engine that is required to comply with the emission standards specified in Conditions VIII.C.1.c or VIII.D.1.c shall demonstrate compliance according to the requirements specified below:

i. Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in 40 CFR 60.4213.

ii. For engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in 40 CFR 60.4213.
[40 CFR 60.4211(d)]

f. The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that each engine complies with the applicable standards in this Permit, and shall make the documentation available to ADEQ upon request. [A.A.C. R18-2-306.A.4]

5. Testing Requirements [40 CFR 60.4212 and 60.4213]

a. The Permittee of an internal combustion engine with a displacement of less than 30 liters per cylinder that conducts performance tests pursuant to this Permit shall do so according to 40 CFR 60.4212.

b. The Permittee of an internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder shall conduct performance tests according to 40 CFR 60.4213.

C. Particulate Matter

1. Emissions Limitations and Standards

a. Pre-2007 model year engines with a displacement of less than 10 liters per cylinder shall meet the following particulate matter emission standards:

Maximum Engine Power (EP) (horsepower)	Emissions Limit (grams/horsepower-hour)
EP<11	0.75
11≤EP<50	0.60
50≤EP<175	N/A
EP≥175	0.40

[40 CFR 60.4204(a) and 60.4205(a)]

b. Fire pump engines with a displacement of less than 30 liters per cylinder shall meet the following particulate matter emission standards:

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit (grams/horsepower-hour)
EP<11	2010 and earlier	0.75
	2011 and later	0.30
11≤EP<25	2010 and earlier	0.60
	2011 and later	0.30
25≤EP<50	2010 and earlier	0.60
	2011 and later	0.22
50≤EP<75	2010 and earlier	0.60
	2011 and later	0.30
75≤EP<100	2010 and earlier	0.60
	2011 and later	0.30
100≤EP<175	2009 and earlier	0.60
	2010 and later	0.22
175≤EP<300	2008 and earlier	0.40
	2010 and later	0.15
300≤EP<600	2008 and earlier	0.40
	2009 and later	0.15
600≤EP<750	2008 and earlier	0.40
	2009 and later	0.15
EP≥750	2007 and earlier	0.40
	2008 and later	0.15

[40 CFR 60. 4205(c)]

i. For model years 2011 through 2013, fire pump engines that are greater than 50 horsepower, but less than 100 horsepower with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines. [Note 1 to Table 4 to 40 CFR Subpart IIII]

ii. For model years 2010 through 2012, fire pump engines that are greater than 100 horsepower, but less than 175 horsepower with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[Note 2 to Table 4 to 40 CFR Subpart IIII]

c. Engines with a displacement of greater than 30 liters per cylinder shall meet the following emission standards:

i. Reduce PM emissions by 60% or more; or

ii. Limit the emissions of PM in the engine exhaust to 0.11 grams per horsepower-hour

[40 CFR 60.4204(c)(2) and 60.4205(d)(2)]

2. Air Pollution Control Requirements

If a non-emergency engine is equipped with a diesel particulate filter to comply with the emission standards in Condition VIII.C.1, *the Permittee shall install,* maintain and *operate the particulate filter in accordance with good air pollution control practices for minimizing emissions.*

[A.A.C. R18-2-306.01 and -331.a.3.d and e]

[Material permit conditions are indicated by underline and italics]

3. Monitoring and Record Keeping Requirements

a. If a non-emergency engine is equipped with a diesel particulate filter to comply with the emission standards in Condition VIII.C.1, *the Permittee shall install a backpressure monitor on the diesel particulate filter that notifies the Permittee when the high backpressure limit of the engine is approached*. [40 CFR 60.4209(b) and A.A.C. R18-2-331.a.3.c]
[Material permit conditions are indicated by underline and italics]

b. The Permittee shall operate and maintain the control device according to the manufacturer's written instructions or procedures that are developed by the Permittee and approved by the engine manufacturer. A copy of the instructions or procedures shall be kept onsite and made available to ADEQ upon request. [40 CFR 60.4211(a) and A.A.C. R18-2-306.A.3]

c. If the internal combustion engine is equipped with a diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached. [40 CFR 60.4214(c)]

d. If the Permittee elects to meet the emission limitations contained in Condition VIII.C.1.b.i or ii, the Permittee shall maintain records, including manufacturer specifications, demonstrating that the engine meets the horsepower and RPM specifications. [A.A.C. R18-2-306.A.4]

D. Nitrogen Oxides

1. Emissions Limitations and Standards

a. Pre-2007 model year internal combustion engines, that are not fire pump engines, that have a displacement of less than 10 liters per cylinder shall meet the following emission standards:

Maximum Engine Power (EP) (horsepower)	Emissions Limit (grams/horsepower-hour)
EP<11	7.8*
11≤EP <50	7.1*
EP≥50	6.9

* indicates nonmethane hydrocarbons (NMHC)+NO_x
[40 CFR 60.4204(a) and 60.4205(a)]

b. Fire pump engines that have a displacement of less than 30 liters per cylinder shall meet the following emission standards:

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit* (grams/horsepower-hour)
EP<11	2010 and earlier	7.8
	2011 and later	5.6
11≤EP <25	2010 and earlier	7.1
	2011 and later	5.6
25≤EP <50	2010 and earlier	7.1

	2011 and later	5.6
50≤EP <75	2010 and earlier	7.8
	2011 and later	3.5
75≤EP <100	2010 and earlier	7.8
	2011 and later	3.5
100≤EP <175	2009 and earlier	7.8
	2010 and later	3.0
175≤EP <300	2008 and earlier	7.8
	2010 and later	3.0
300≤EP <600	2008 and earlier	7.8
	2009 and later	3.0
600≤EP <750	2008 and earlier	7.8
	2009 and later	3.0
EP≥750	2007 and earlier	7.8
	2008 and later	4.8

* indicates NMHC+NO_x [40 CFR 60. 4205(c)]

i. For model years 2011through 2013, fire pump engines that are greater than 50 horsepower, but less than 100 horsepower with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines. [Note 1 to Table 4 to 40 CFR Subpart IIII]

ii. For model years 2010 through 2012, fire pump engines that are greater than 100 horsepower, but less than 175 horsepower with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines. [Note 2 to Table 4 to 40 CFR Subpart IIII]

c. Pre-2007 model year internal combustion engines that have a displacement of greater than 10 liters per cylinder but less than 30 liters per cylinder that are not fire pump engines shall comply with the emission standards in 40 CFR 94.8(a)(1) as follows: [40 CFR 60.4204(a) and 60.4205(a)]

i. 17.0 g/kW-hr when the maximum test speed is less than 130 rpm.

ii. $45.0 \times N^{-0.20}$ g/kW-hr when the maximum test speed is at least 130 but less than 2000 rpm, where N is the maximum test speed of the engine in revolutions per minute.

iii. 9.8 g/kW-hr when the maximum test speed is 2000 rpm or more.

iv. All speed-dependent standards in this Part shall be rounded to the nearest 0.1 g/kW-hr

d. Internal combustion engines with a displacement of greater than 30 liters per cylinder shall meet the following emission standards:

i. Reduce NO_x emissions by 90% or more; or

ii. Limit the emissions of NO_x in the engine exhaust to 1.2 grams

per horsepower-hour

[40 CFR 60.4204(c)(1) and 60.4205(d)(1)]

e. If the Permittee elects to meet the emission limitations contained in Condition VIII.D.1.b.i or ii, the Permittee shall maintain records, including manufacturer specifications, demonstrating that the engine meets the horsepower and RPM specifications. [A.A.C. R18-2-306.A.4]

E. Carbon Monoxide

1. Emissions Limitations and Standards

a. Pre-2007 model year internal combustion engines with a displacement of less than 10 liters per cylinder shall meet the following emission standards:

Maximum Engine Power (EP) (horsepower)	Emissions Limit (grams/horsepower-hour)
EP<11	6.0
11≤EP<25	4.9
25≤EP<50	4.1
50≤EP<175	N/A
EP≥175	8.5

[40 CFR 60.4204(a) and 60.4205(a)]

b. Fire pump engines that have a displacement of less than 30 liters per cylinder shall meet the following emission standards:

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit* (grams/horsepower-hour)
EP<11	2010 and earlier	6.0
	2011 and later	N/A
11≤EP<25	2010 and earlier	4.9
	2011 and later	N/A
25≤EP<50	2010 and earlier	4.1
	2011 and later	N/A
50≤EP<75	2010 and earlier	3.7
	2011 and later	N/A
75≤EP<100	2010 and earlier	3.7
	2011 and later	N/A
100≤EP<175	2009 and earlier	3.7
	2010 and later	N/A
175≤EP<300	2008 and earlier	2.6
	2010 and later	N/A
300≤EP<600	2008 and earlier	2.6
	2009 and later	N/A
600≤EP<750	2008 and earlier	2.6
	2009 and later	N/A
EP≥750	2007 and earlier	2.6
	2008 and later	N/A

[40 CFR 60. 4205(c)]

F. Hydrocarbon

Emissions Limitations and Standards

Pre-2007 model year internal combustion engines that have a displacement of less than 10 liters per cylinder and a maximum engine power rating greater than or equal to 175 horsepower shall not emit more than 1.0 gram of hydrocarbons per horsepower hour.
[40 CFR 60.4204(a) and 60.4205(a)]

IX. GENERATORS NOT SUBJECT TO NSPS

A. Applicability

This Section applies to internal combustion engines marked as not subject to NSPS on the associated ATO.

B. Particulate Matter and Opacity

1. Emission Limitations and Standards [A.A.C. R18-2-719.B, -719.C.1, and -719.E]
[Material permit conditions are indicated by underline and italics]

a. The Permittee shall not cause or allow to be discharged into the atmosphere from the generator stack(s) particulate matter in excess of the amount calculated by the following equation:

$E = 1.02\ Q^{0.769}$ where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour
Q = the heat input in million Btu per hour

b. For the purposes of the calculations required in Condition IX.B.1.a. above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units at a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

c. Opacity [A.A.C. R18-2-719.E]

i. The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity.

ii. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

2. Monitoring and Recordkeeping [A.A.C. R18-2-306.A.3.c.]

c. A certified EPA Reference Method 9 observer shall conduct a quarterly survey of visible emissions emanating from the generator. If the opacity of the emissions observed appears to exceed the standard, the observer

shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of the observer, name of the observer, date and time of the observation, and the results of the observation. If the observation results in an exceedance of the opacity limit, the Permittee shall take corrective action and log all such actions. Such exceedance shall be reported as excess emissions in accordance with Condition XI.A.1 of Attachment "A".

[A.A.C. R18-2-306.A.3.c]

b. The Permittee shall keep records of fuel supplier certifications. The certification shall contain information regarding the name of fuel supplier and lower heating value of the fuel. These records shall be made available to ADEQ upon request

3. Testing Requirement

The Permittee shall conduct performance tests at such times as may be required by the Director.

C. Sulfur Dioxide

1. Emission Limitations and Standards

a. The Permittee shall not emit or cause to emit more than 1.0 pound of sulfur dioxide per million Btu heat input. [A.A.C. R18-2-719.F]

b. The Permittee shall not burn high sulfur diesel fuel (sulfur content greater than 0.9 % by weight) in the generator(s). [A.A.C. R18-2-719.H]

2. Monitoring, Recordkeeping, and Reporting

a. The Permittee shall keep daily records of the sulfur content and lower heating value of the fuel being fired in the generator(s). The Permittee shall keep records of fuel supplier certifications to demonstrate compliance with the sulfur content limit specified in this Condition IX.C.1.b. The certification shall contain the sulfur content of the fuel and the method used to determine the sulfur content of the fuel. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c and -719.I]

b. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired in the machine exceeds 0.8%.

[A.A.C. R18-2-719.J]

AIR QUALITY CONTROL GENERAL PERMIT
FOR AIR CURTAIN INCINERATORS

ATTACHMENT "C": SPECIFIC CONDITIONS INSIDE MARICOPA COUNTY

I. INTERNAL COMBUSTION ENGINES

A. Applicability

1. The provisions of this section are applicable to all internal combustion engines operated inside Maricopa County, except mobile equipment and engines that have been determined by the Director to be non-road engines.

2. Whenever more than one Condition in this Attachment regulating the same emissions applies to any emissions unit, or whenever a Condition in this Attachment and a Condition in Attachment "B" regulating the same emissions applies to any emissions unit, the Condition or combination of Conditions resulting in the lowest emissions rate or lowest concentration of regulated air pollutants released to the atmosphere shall apply, unless otherwise specifically exempted or designated in the applicable permit Conditions.

[A.R.S. § 49-402(D)]

3. An existing engine shall mean an engine that commenced operation prior to October 22, 2003, or an engine on which the construction or modification has commenced prior to October 22, 2003, including the contractual obligation to undertake and complete an order for an engine. [Rule 324 §208]

4. A new engine shall mean any engine that is not an existing engine. [Rule 324 §215]

5. Partial Exemptions for Emergency Engines

Any stationary IC engine operated as an emergency engine for any of the following reasons is exempt from all of the conditions of this Section, except for Conditions I.B.4.a and c, I.C.1 and I.D.1.a, if the engines are:

a. used only for power when normal power service fails from the serving utility or if onsite electrical transmission or onsite power generation equipment fails; [Rule 324 §104.1]

b. Used only for the emergency pumping of water resulting from a flood, fire, lightning strikes, police action or for any other essential public services which affect the public health and safety. [Rule 324 §104.2]

B. General

1. Good Combustion Practices/Tuning Procedure [Rule 324 §302]

The Permittee shall conduct preventative maintenance or tuning procedures recommended by the engine manufacturer to ensure good combustion practices to minimize NO_x emissions. A handheld monitor may be used if so desired by

the Permittee for measurement of NO_x, CO and concentrations in the effluent stream after each adjustment has been made to ensure NO_x and CO minimization. In lieu of a manufacturer's procedure, a different procedure specified by any other maintenance guideline may be used as a default procedure. The tuning procedure shall include all of the following, if so equipped, and appropriate to the type of engine:

a. Lubricating Oil and Filter: Change once every three months or after no more than 300 hours of operation, whichever occurs last. [Rule 324 §302.1]

b. Inlet Air Filter: Clean once every three months or after no more than 300 hours of operation and replace every 1,000 hours of operation or every year, whichever occurs last. [Rule 324 §302.2]

c. Fuel Filter: Clean once every year or replace (if cartridge type) once every 1,000 hours of operation, whichever occurs last. [Rule 324 §302.3]

d. Check and adjust the following once every year or after no more than 1,000 hours of operation, whichever occurs last: [Rule 324 §302.4]

(1). Intake and exhaust valves

(2). Spark plugs (if so equipped)

(3). Spark timing and dwell or fuel injection timing (if adjustable), and

(4). Carburetor mixture (if adjustable)

e. Spark Plugs and Ignition Points: Replace after 3,000 hours of operation or every year whichever occurs last. [Rule 324 §302.5]

f. Coolant: Change after 3,000 hours of operation or every year whichever occurs last; and [Rule 324 §302.6]

g. Exhaust System: Check for leaks and/or restrictions after 3,000 hours of operation or every year whichever occurs last. [Rule 324 §302.7]

2. Efficiency Allowance

Each emission limitation expressed in Conditions I.D.2 1, I.E.1.a, b, c, and d, I.F.1.a and b, or I.G.1., may be multiplied by X, where X equals the engine efficiency (E) divided by a reference efficiency of 30 percent. Engine efficiency shall be determined by one of the following methods whichever is higher:

E = (Engine Output) x (100) ÷ (Energy Input)

Where energy input is determined by a fuel measuring device accurate to ± 5% and is based upon the higher heating value (HHV) of the fuel. Percent efficiency (E) shall be averaged over 14 consecutive minutes and measured at peak load for the applicable engine.

E = (Manufacturers Rated Efficiency [Continuous] at LHV) ÷ (HHV)

Where LHV = the lower heating value of the fuel

Engine efficiency shall not be less than 30 percent; an engine with an efficiency lower than 30 percent shall be assigned an efficiency of 30 percent for the purposes of this Condition. [Rule 324 §305]

3. Equivalent or Identical Engine Replacement

An equivalent or identical replacement engine that replaces an existing engine shall be treated as an existing engine for the purposes of compliance with the Condition I unless the engine commenced operation or was constructed or modified after October 22, 2003, including the contractual obligation to undertake and complete an order for an engine and then it will be considered a new engine in this Section. [Rule 324 §306]

4. Monitoring, Reporting and Recordkeeping [Rule 324 §502]

a. The Permittee shall keep a record that includes an initial one time entry that lists the particular engine combustion type (compression or spark-ignition or rich or lean burn); manufacturer; model designation, rated brake horsepower, serial number and where the engine is located on the site. [Rule 324 §502.1]

b. The Permittee shall maintain an annual record of good combustion procedures. [Rule 324 §502.3]

c. The Permittee shall keep annual engine records for emergency engines that include:

i. Hours of operation; and

ii. Explanation for the use of the engine if it is used as an emergency engine. [Rule 324 §502.4]

C. Fuel Limitations

1. Permitted Fuel [Rule 324 §301]

The Permittee shall use fuel that contains no more than 0.05% sulfur by weight.

2. Monitoring, Reporting and Recordkeeping [Rule 324 §501, 502]

a. If the Director requests proof of the sulfur content, the Permittee shall submit fuel receipts, contract specifications, pipeline meter tickets, Material Safety Data Sheets (MSDS), fuel supplier information or purchase records, if applicable, from the fuel supplier, indicating the sulfur content of the fuel oil. In lieu of these, testing of the fuel oil for sulfur content to meet the 0.05% limit shall be permitted if so desired by the Permittee for evidence of compliance.

b. The Permittee shall maintain a monthly record which shall include the

hours of operation, the type of fuel used and documentation verifying compliance with the fuel sulfur content.

D. Particulate Matter and Opacity

1. Emission Limitations/Standards [Rule 324 §303]

a. The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.

b. The Permittee shall limit PM emissions to 0.40 g/bhp-hr for any new compression ignition engine that has a rate brake horsepower greater than 250 bhp. [Rule 324 §304 Table 3]

2. Monitoring, Reporting, and Record keeping [A.A.C. R18-2-306.A.3.c]

a. The Permittee shall maintain copies of the manufacturer's specifications to show compliance with Condition I.D.1.b.

[A.A.C. R18-2-306.A.4]

E. Nitrogen Oxides

1. Emission Limitations/Standards

a. The Permittee shall comply with one of the following requirements to control NO_x emissions if the rated brake horsepower (bhp) of the existing compression ignition engine is equal to or greater than 400 bhp:

[Rule 324 §304 Table 1]

i. The Permittee shall limit emissions to 550 ppmdv or 7.2 g/bhp-hr;

ii. Employ a turbocharger with aftercooler/intercooler; or

iii. Employ a 4-degree injection timing retard.

b. The Permittee shall comply with one of the following requirements to control NO_x emissions if the rated brake horsepower (bhp) of the existing compression-ignition engine is less than 400 bhp and greater than or equal to 250 bhp: [Rule 324 §304 Table 1]

i. The Permittee shall limit emissions to 770 ppmdv or 10 g/bhp-hr;

ii. Employ a turbocharger with aftercooler/intercooler; or

iii. Employ a 4-degree injection timing retard.

c. The Permittee shall comply with one of the following requirements to control NO_x emissions if the rated brake horsepower (bhp) of the existing spark ignition is greater than 250 bhp:

[Rule 324 §304 Table 2]

i. The Permittee shall limit emissions to 280 ppmdv or 4.0 g/bhp-hr; or

ii. Employ a three way catalyst. The three way catalyst shall provide a minimum of 80% control efficiency for NO_x for those engines fueled with natural gas, propane, or gasoline.

d. The Permittee shall comply with one of the following requirements to control NO_x emissions if the rated brake horsepower (bhp) of the new spark or compression ignition is greater than 250 bhp: [Rule 324 §304 Table 3]

i. The Permittee shall limit emissions to 110 ppmdv or 1.5 g/bhp-hr if the engine is a new lean burn spark engine;

ii. The Permittee shall limit emissions to 20 ppmdv or 0.30 g/bhp-hr if the engine is a new rich burn spark engine; and

iii. The Permittee shall limit emissions to 530 ppmdv or 6.9 g/bhp-hr if the engine is a new compression ignition engine.

2. Monitoring, Recordkeeping and Testing [Rule 324 §500, 503]

For new I.C. engines, compliance with the limitations listed in Condition I.C E.1, must be kept on site and shall be demonstrated by either:

a. A statement from the manufacturer that the engine meets the most stringent emissions standards found in 40 CFR Part 89 or 90 applicable to the engine and its model year at the time of manufacture, or

b. Performance of emission testing using the test methods listed in Section 503 of Maricopa County Rule 324.

F. Carbon Monoxide

1. Emission Limitations/Standards

a. The Permittee shall comply with one of the following requirements to control CO emissions if the rated brake horsepower (bhp) of the existing spark ignition is greater than 250 bhp: [Rule 324 §304 Table 2]

i. The Permittee shall limit emissions to 4,500 ppmdv; or

ii. Employ a three way catalyst. The three way catalyst shall provide a minimum of 80% control efficiency for those engines fueled with natural gas, propane, or gasoline.

b. The Permittee shall comply with one of the following requirements to control CO emissions if the rated brake horsepower (bhp) of the new spark or compression ignition is greater than 250 bhp: [Rule 324 §304 Table 3]

i. The Permittee shall limit emissions to 4,500 ppmdv if the engine

is either a new lean burn or rich burn spark engine; and

ii. The Permittee shall limit emissions to 1,000 ppmdv if the engine is a new compression ignition engine.

2. Monitoring, Recordkeeping and Testing [Rule 324 §500, 503]

For new I.C. engines, compliance with the limitations listed in Condition I.F, must be kept on site and shall be demonstrated by either:

a. A statement from the manufacturer that the engine meets the most stringent emissions standards found in 40 CFR Part 89 or 90 applicable to the engine and its model year at the time of manufacture; or

b. Performance of emission testing using the test methods listed in Section 503 of Maricopa County Rule 324.

G. Volatile Organic Compounds

1. Emission Limitations/Standards [Rule 324 §304]

The Permittee shall comply with one of the following requirements to control VOC emissions if the rated brake horsepower (bhp) of the existing spark ignition is greater than 250 bhp: [Rule 324 §304 Table 2]

a. The Permittee shall limit emissions to 800 ppmdv or 5.0 g/bhp-hr; or

b. Employ a three way catalyst. The three way catalyst shall also provide a minimum of at least 50% control efficiency for VOC for those engines fueled by gasoline.

2. Monitoring, Recordkeeping and Testing [Rule 324 §500, 503]

For new I.C. engines, compliance with the limitations listed in Condition I.G shall be demonstrated by either:

a. A statement from the manufacturer that the engine meets the most stringent emissions standards found in 40 CFR Part 89 or 90 applicable to the engine and its model year at the time of manufacture; or

b. Performance of emission testing using the test methods listed in Section 503 of Maricopa County Rule 324.

AIR QUALITY CONTROL GENERAL PERMIT
FOR AIR CURTAIN INCINERATORS

ATTACHMENT "D": SPECIFIC CONDITIONS INSIDE PINAL COUNTY

I. Air Curtain Incinerators Operated Inside Pinal County

A. Applicability

1. The provisions of this section are applicable to all air curtain incinerators operated inside Pinal County if the products of combustion are released through a stack, chimney, or equivalent.

2. Whenever more than one Condition in this Attachment regulating the same emissions applies to any emissions unit, or whenever a Condition in this Attachment and a Condition in Attachment "B" regulating the same emissions applies to any emissions unit, the Condition or combination of Conditions resulting in the lowest emissions rate or lowest concentration of regulated air pollutants released to the atmosphere shall apply, unless otherwise specifically exempted or designated in the applicable permit Conditions.

[A.R.S. § 49-402(D)]

B. Operating Limitations

Air curtain incinerators shall not be used within 500 feet of the nearest dwelling.

[Rule 5-3-100-C]

C. Particulate Matter

1. Emissions Limitations/Standards

   a. The Permittee shall not emit in any one hour particulate matter in excess of .1 grains per cubic foot based on dry flue gas at standard conditions corrected to 12 percent carbon dioxide. [Rule 5-3-100-B-1]

   b. The Permittee shall be exempted from the above standard in the following circumstances:

      i. For a period once each day for the purpose of building a new fire but not to exceed 60 minutes [Rule 5-3-100-D-2-a]

      ii For an upset of operations not to exceed three minutes in any 60 minute period. [Rule 5-3-100-D-2-b]

2. Test Procedures

   a. The Permittee shall use the test methods in 40 CFR 60, Appendix A to demonstrate compliance with the emission standards in Section I.C as follows:

      i. Method 5 for the concentration of particulate matter and the associated moisture content. The sampling time for each run shall be at least 60 minutes and the minimum sample volume

shall be 30.0 dry standard cubic feet, except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the Director. [Rule 5-3-100-F-1-a , 5-3-100-F-2]

ii. Method 1 for sample and velocity traverses [Rule 5-3-100-F-1-b]

iii Method 2 for velocity and volumetric flow rate [Rule 5-3-100-F-1-c]

iv. Method 3 for gas analysis and calculation of excess air, using the integrated sampling technique [Rule 5-3-100-F-1-d]